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SEP 27 2005



## 510(K) SUMMARY

Sponsor:

Biomet Manufacturing Corp.

P.O. Box 587

Warsaw, IN 46581-0587

**Contact Person:** 

Tracy Bickel Johnson, RAC

Regulatory Associate

Biomet Manufacturing Corp.

(574) 267-6639

**Proprietary Name:** 

Vitamin E Acetabular Liners (E-Poly™)

Common Name: UHMWPE Liners

Classification Name(s):

prosthesis, hip, semi-constrained, metal/polymer, cemented (888.3350); prosthesis, hip, semi-constrained, metal/ceramic/polymer, cemented or non-porous, uncemented (888.3353); prosthesis, hip, semi-constrained, uncemented metal/ polymer, non-porous, calcium phosphate (888.3353); prosthesis, hip, semi-constrained, metal/polymer, porous (888.3358); prosthesis, hip, semi-constrained, uncemented, metal/polymer, porous

(888.3358)

Substantially Equivalent Devices:

-ArCom® Polyethylene Liners and Components (K023357)

-RingLoc® 36mm Liners (K032396)

Device Description: Biomet Manufacturing Corp. is modifying the manufacturing process of ultra-high molecular weight polyethylene (UHMWPE) used in the fabrication of polyethylene acetabular components. The modified manufacturing process results in a higher cross-linked polyethylene. The highly cross-linked UHMWPE is infused with medical grade Vitamin E.

#### Indications for Use:

- Non-inflammatory degenerative joint disease including osteoarthritis and avascular 1) necrosis.
- Rheumatoid arthritis. 2)
- Correction of functional deformity. 3)
- Treatment of non-union, femoral neck fracture, and trochanteric fractures of the 4) proximal femur with head involvement, unmanageable using other techniques.
- Revision of previously failed total hip arthroplasty. 5)

Cemented and Uncemented Applications

MAILING ADDRESS P.O. Box 587 Warsaw, IN 46581-0587 SHIPPING ADDRESS 56 E. Bell Drive Warsaw, IN 46582

510(k) Summary- Page 2 of 3 Biomet Manufacturing, Corp. Vitamin E Acetabular Liners (E-Poly™)

Summary of Technologies:

The intended use, indications, contraindications, and design specifications of the subject components remain identical to their predicate component counterparts. The raw material being utilized in the manufacture of both the subject and the predicate devices remains a ultra-high molecular weight polyethylene (UHMWPE) per ASTM F-648. The modifications to the manufacturing process of this polyethylene will be introduced in order to create a higher cross-linked polyethylene. The safety and effectiveness of this cross-linked polyethylene in acetabular applications, as well as the proposed wear claims, are adequately supported by the substantial equivalence information, materials data, and testing results provided within this Premarket Notification.

Non-Clinical Testing: Non-clinical laboratory testing was performed to determine substantial equivalence.

The results indicated that the device was functional within its intended use.

Clinical Testing:

None provided as a basis for substantial equivalence.



SEP 2 7 2005

Food and Drug Administration 9200 Corporate Boulevard Rockville MD 20850

Ms. Tracy Bickel Johnson, RAC Regulatory Associate Biomet Manufacturing Corporation 56 East Bell Drive P.O. Box 587 Warsaw, Indiana 46582

Re: K050327

Trade/Device Name: E-Poly<sup>™</sup> Acetabular Liners

Regulation Number: 21 CFR 888.3358

Regulation Name: Hip joint metal/polymer/metal semi-constrained

porous-coated uncemented prosthesis

Regulatory Class: II

Product Code: LPH, JDI, LWJ, MAY

Dated: July 27, 2005 Received: July 28, 2005

#### Dear Ms. Johnson:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the <u>Federal Register</u>.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

This letter will allow you to begin marketing your device as described in your Section 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Office of Compliance at (240) 276-0120. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its Internet address <a href="http://www.fda.gov/cdrh/dsma/dsmamain.html">http://www.fda.gov/cdrh/dsma/dsmamain.html</a>

Sincerely yours,

Mark N. Melkerson Acting Director

Division of General, Restorative, and Neurological Devices

Office of Device Evaluation

Center for Devices and Radiological Health

Enclosure

# **Indications for Use**

510(k) Number (if known):

K050327

**Device Name:** E-Poly<sup>™</sup> Acetabular Liners

### Indications For Use:

- 1) Non-inflammatory degenerative joint disease including osteoarthritis and avascular necrosis.
- 2) Rheumatoid arthritis.
- 3) Correction of functional deformity.
- 4) Treatment of non-union, femoral neck fracture, and trochanteric fractures of the proximal femur with head involvement, unmanageable using other techniques.
- 5) Revision of previously failed total hip arthroplasty.

Cemented and Uncemented Applications

Prescription Use X (Part 21 CFR 801 Subpart D) AND/OR

Over-The-Counter Use \_\_\_\_\_\_\_ (21 CFR 807 Subpart C)

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)

Concurrence of CDRH, Office of Device Evaluation (ODE)

(Division Sign-Off)

Division of General, Restorative,

and Neurological Devices K050327

510(k) Number\_